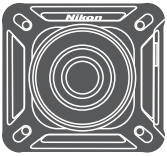
Nikon

DIGITAL CAMERA

KeyMission 360

Reference Manual



Quick Topic Search

- Read this manual thoroughly before using the camera.
- To ensure proper use of the camera, be sure to read "For Your Safety" (page x), "<Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation" (page xiv), and "Notes About Wireless Communication Functions" (page 41).
- After reading this manual, keep it in a readily accessible place for future reference.

En

Quick Topic Search

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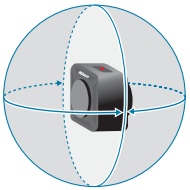
The KeyMission 360

The KeyMission 360 is a new concept camera that is slightly different from the cameras before it.

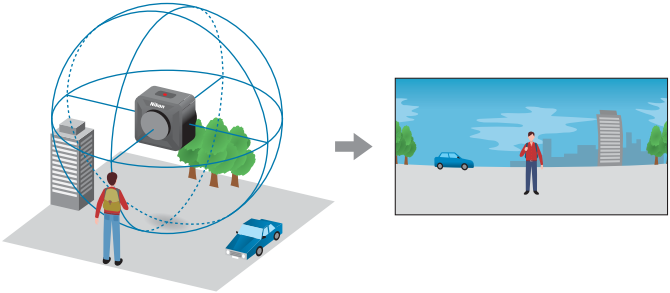
- **Create 360° content**
  The camera combines two images captured by lenses with an angle of view of about 180 degrees so that you can enjoy creating 360° content (except when shooting underwater).
- **Easy shooting with just one button**
  You can press a button to simultaneously turn on the camera and shoot.
- **Connect to a smart device**
  Perform various operations and settings using a dedicated app due to the camera's lack of a screen.
- **A wide variety of accessories that expands shooting capabilities**



The Images

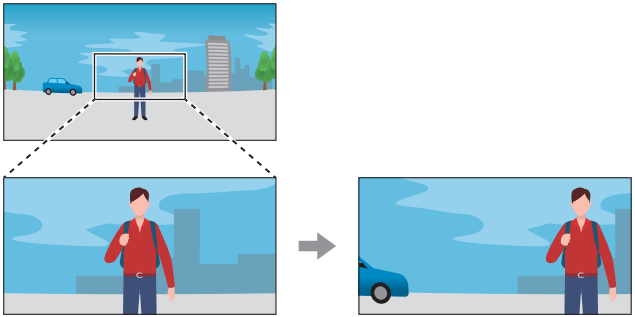
The two captured images are processed in the camera and saved as a single image. You can shoot at a 4K UHD size.

- The camera may be unable to capture subjects within about 60 cm (2 ft) from the camera's top, bottom, or sides.
- Under some shooting conditions, the boundaries of the composited areas may be noticeable.
- Under some shooting conditions, images may not match perfectly at the composite boundaries.



Playing Back Images

- **Playing back using the SnapBridge 360/170 app, the KeyMission 360/170 Utility, or a TV (HDMI connection):**
  Part of the single image that was processed in the camera is displayed and you can play back while moving the point of view.



- **Playing back using other software:**
  The single image that was processed in the camera is displayed. You cannot move the point of view during playback.

Operations Available with the SnapBridge 360/170 App

- **Remote photography**
  Release the shutter from places away from the camera.
- **Changing camera settings**
  Change settings related to the camera's date and time, shooting, or lamp brightness.
- **Image playback and editing**
  Play back images, crop still images, edit movies, or extract still images from movies.

See the SnapBridge 360/170 app online help for more information.

SnapBridge

Your images. The world. Connected

Welcome to SnapBridge — Nikon's new family of services to enrich your image experience. SnapBridge connects your camera and compatible smart device, through a combination of *Bluetooth*® low energy (BLE) technology and a dedicated app. The stories you capture with your Nikon camera and lenses are automatically transferred to the device as they are taken. They can even be uploaded effortlessly to cloud storage services, inviting access across all your devices.

* Wireless communication is not available when the camera is underwater.

Download the SnapBridge app to get started!

The dedicated app "SnapBridge 360/170" is required to set up this camera, use remote photography, play back images, change settings, and more.

Before setting up the camera, install the dedicated app on your smartphone or tablet.

Through a few simple steps, this app connects your Nikon cameras with a compatible iPhone®, iPad® and/or iPod touch® or smart devices running on the Android™ operating system. The app is available free from the website (http://snapbridge.nikon.com), Apple App Store® and Google Play™.

For the latest information on SnapBridge, visit the Nikon website for your area (viii).

The exciting image experience that SnapBridge 360/170 offers…

Automatic picture transfer from camera to smart device[1] thanks to the constant connection between the two devices — making online photo sharing easier than ever

Upload of photos and thumbnail images to the NIKON IMAGE SPACE cloud service[2]

1 Movies cannot be automatically transferred.
2 NIKON IMAGE SPACE does not support the viewing of 360° content by moving the point of view.

A range of services that enriches your imaging life, including:

- Camera remote control

- Automatic update of camera's date and time info and location info

- Receive camera's firmware updates

Introduction

Read This First

Thank you for purchasing the Nikon KeyMission 360 digital camera.

Using “SnapBridge 360/170”

The dedicated app “SnapBridge 360/170” is required to set up this camera, use remote photography, play back images, change settings, and more.

Before setting up the camera, install the dedicated app on your smartphone or tablet (🕮v).

Symbols and Conventions Used in This Manual

- Tap or click in the lower right of each page to display “Quick Topic Search” (🕮ii).
- Symbols

Symbol	Description
☑	This icon marks cautions and information that should be read before using the camera.
✎	This icon marks notes and information that should be read before using the camera.
🕮	This icon marks other pages containing relevant information.

- microSD, microSDHC, and microSDXC memory cards are referred to as “memory cards” in this manual.
- The setting at the time of purchase is referred to as the “default setting.”
- The names of menu items displayed on the smart device screen, and the names of buttons or messages displayed on a computer screen appear in bold.
- In this manual, images are sometimes omitted from screen display samples so that screen indicators can be more clearly shown.

Information and Precautions

Life-Long Learning

As part of Nikon's "Life-Long Learning" commitment to ongoing product support and education, continually updated information is available online at the following websites:

- For users in the U.S.A.: http://www.nikonusa.com/
- For users in Europe: http://www.europe-nikon.com/support/
- For users in Asia, Oceania, the Middle East, and Africa: http://www.nikon-asia.com/

Visit these websites to keep up-to-date with the latest product information, tips, answers to frequently asked questions (FAQs), and general advice on digital imaging and photography. Additional information may be available from the Nikon representative in your area. Visit the website below for contact information.

http://imaging.nikon.com/

Use Only Nikon Brand Electronic Accessories

Nikon digital cameras are designed to the highest standards and include complex electronic circuitry. Only Nikon brand electronic accessories (including battery chargers, batteries, AC adapters, and USB cables) certified by Nikon specifically for use with this Nikon digital camera are engineered and proven to operate within the operational and safety requirements of this electronic circuitry.

THE USE OF NON-NIKON ELECTRONIC ACCESSORIES COULD DAMAGE THE CAMERA AND MAY VOID YOUR NIKON WARRANTY.

The use of third-party rechargeable Li-ion batteries not bearing the Nikon holographic seal could interfere with normal operation of the camera or result in the batteries overheating, igniting, rupturing, or leaking.

Holographic seal: Identifies this device as an authentic Nikon product.

For more information about Nikon brand accessories, contact a local authorized Nikon dealer.

Before Taking Important Pictures

Before taking pictures on important occasions (such as at weddings or before taking the camera on a trip), take a test shot to ensure that the camera is functioning normally. Nikon will not be held liable for damages or lost profits that may result from product malfunction.

About the Manuals

- No part of the manuals included with this product may be reproduced, transmitted, transcribed, stored in a retrieval system, or translated into any language in any form, by any means, without Nikon's prior written permission.
- Illustrations and screen content shown in this manual may differ from the actual product.
- Nikon reserves the right to change the specifications of the hardware and software described in these manuals at any time and without prior notice.
- Nikon will not be held liable for any damages resulting from the use of this product.
- While every effort was made to ensure that the information in these manuals is accurate and complete, we would appreciate it were you to bring any errors or omissions to the attention of the Nikon representative in your area (address provided separately).

Comply with Copyright Notices

Under copyright law, photographs or recordings of copyrighted works made with the camera can not be used without the permission of the copyright holder. Exceptions apply to personal use, but note that even personal use may be restricted in the case of photographs or recordings of exhibits or live performances.

Disposing of Data Storage Devices

Please note that deleting images or formatting data storage devices such as memory cards does not completely erase the original image data. Deleted files can sometimes be recovered from discarded storage devices using commercially available software, potentially resulting in the malicious use of personal image data. Ensuring the privacy of such data is the user's responsibility.

Before discarding a data storage device or transferring ownership to another person, erase all data in the device using commercial deletion software, or format the device using **Camera ➔ Camera settings ➔ Format card** in the SnapBridge 360/170 app (📖27), and then completely refill it with images containing no private information such as images of empty sky (**Camera ➔ Camera settings ➔ Location data ➔** turn off **Download from device** and then take pictures).

Next, reset all of the camera's settings in **Camera ➔ Camera settings ➔ Reset all** in the SnapBridge 360/170 app.

Care should be taken to avoid injury or damage to property when physically destroying memory cards.

For Your Safety

To prevent damage to property or injury to yourself or to others, read "For Your Safety" in its entirety before using this product.
Keep these safety instructions where all those who use this product will read them.

DANGER	**Failure to observe the precautions marked with this icon carries a high risk of death or severe injury.**
WARNING	**Failure to observe the precautions marked with this icon could result in death or severe injury.**
CAUTION	**Failure to observe the precautions marked with this icon could result in injury or property damage.**

DANGER

- **Do not attach directly to your head.** Failure to observe this precaution could result in accidents or other injury.

WARNING

- **Do not use while walking or operating a vehicle. Mount the product where it will not interfere with vehicle operation. Do not wear this product if this will interfere with the use of required equipment. Do not wear this product where it will come into contact with other people or objects.** Failure to observe these precautions could result in accidents or other injury.
- **Do not disassemble or modify this product. Do not touch internal parts that become exposed as the result of a fall or other accident.** Failure to observe these precautions could result in electric shock or other injury.
- **Should you notice any abnormalities such as the product producing smoke, heat, or unusual odors, immediately disconnect the battery or power source.** Continued operation could result in fire, burns or other injury.
- **Do not handle the plug with wet hands.** Failure to observe this precaution could result in fire or electric shock.

- **Do not let your skin remain in prolonged contact with this product while it is on or plugged in.** Failure to observe this precaution could result in low-temperature burns.
- **Do not use this product in the presence of flammable dust or gas such as propane, gasoline or aerosols.** Failure to observe this precaution could result in explosion or fire.
- **Keep this product out of reach of children.** Failure to observe this precaution could result in injury or product malfunction. In addition, note that small parts constitute a choking hazard. Should a child swallow any part of this product, seek immediate medical attention.
- **Do not use batteries, chargers, AC adapters, or USB cables not specifically designated for use with this product. When using batteries, chargers, AC adapters, and USB cables designated for use with this product, do not:**
  - **Damage, modify, forcibly tug or bend the cords or cables, place them under heavy objects, or expose them to heat or flame.**
  - **Use travel converters or adapters designed to convert from one voltage to another or with DC-to-AC inverters.**

  Failure to observe these precautions could result in fire or electric shock.
- **Do not handle the plug when charging the product or using the AC adapter during thunderstorms.** Failure to observe this precaution could result in electric shock.
- **Do not handle with bare hands in locations exposed to extremely high or low temperatures.** Failure to observe this precaution could result in burns or frostbite.
- **Be sure the product has been properly secured. Pay attention to your surroundings. Observe the rules and regulations of all facilities and in all contests where the product is to be used.** Failure to observe these precautions could result in accidents or other injury.

⚠ CAUTION

- **Turn this product off when its use is prohibited. Disable wireless features when the use of wireless equipment is prohibited.** The radio-frequency emissions produced by this product could interfere with equipment onboard aircraft or in hospitals or other medical facilities.
- **Remove the battery and disconnect the AC adapter if this product will not be used for an extended period.** Failure to observe this precaution could result in fire or product malfunction.

- **Do not leave the product where it will be exposed to extremely high temperatures, for an extended period such as in an enclosed automobile or in direct sunlight.** Failure to observe this precaution could result in fire or product malfunction.
- **Check that the equipment is mounted correctly and inspect it for wear and damage at regular intervals.** Failure to observe this precaution could result in accidents or other injury.
- **Do not rapidly or excessively shake your body while the product is attached.** Failure to observe this precaution could result in the product coming loose, causing accidents or other injury.
- **Do not place the product on, or attach it to, unstable surfaces.** Failure to observe this precaution could result in the product coming loose or falling over, causing accidents or other injury.

DANGER for Batteries

- **Do not mishandle batteries.** Failure to observe the following precautions could result in the batteries leaking, overheating, rupturing, or catching fire:
  - Use only rechargeable batteries approved for use in this product.
  - Do not expose batteries to flame or excessive heat.
  - Do not disassemble.
  - Do not short-circuit the terminals by touching them to necklaces, hairpins, or other metal objects.
  - Do not throw or apply strong physical shocks to batteries or products in which they are inserted.
- **Recharge using the specified method.** Failure to observe this precaution could result in the batteries leaking, overheating, rupturing, or catching fire.
- **If battery liquid comes into contact with the eyes, rinse with plenty of clean water and seek immediate medical attention.** Delaying action could result in eye injuries.

WARNING for Batteries

- **Keep batteries out of reach of children.** Should a child swallow a battery, seek immediate medical attention.
- **Do not immerse batteries in water or expose to rain.** Failure to observe this precaution could result in fire or product malfunction. Immediately dry the product with a towel or similar object should it become wet.

- **Discontinue use immediately should you notice any changes in the batteries, such as discoloration or deformation. Cease charging if they do not charge in the specified period of time.** Failure to observe these precautions could result in the batteries leaking, overheating, rupturing, or catching fire.
- **Prior to disposal, insulate battery terminals with tape.** Overheating, rupture, or fire may result should metal objects come into contact with the terminals. Recycle or dispose of batteries in accord with local regulations.
- **If battery liquid comes into contact with a person's skin or clothing, immediately rinse the affected area with plenty of clean water.** Failure to observe this precaution could result in skin irritation.

<Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation

- The shockproof, waterproof, and dustproof performance described here do not guarantee that the camera will remain completely waterproof or free from damage and trouble under all conditions.
- Do not subject the camera to excessive shock, vibration or pressure by dropping it, hitting it, or placing a heavy object on it. Failure to observe this precaution could deform the camera, cause water to seep inside, or damage the airtight seals, resulting in camera malfunction.
- Your Nikon warranty may not cover troubles caused by water seeping inside the camera due to improper handling of the camera.

Notes About Shockproof Performance

This camera has passed Nikon's in-house test (drop test from a height of 200 cm (6 ft 6 in.) on a 5 cm (2 in.) thick plywood panel) compliant with the MIL-STD 810F Method 516.5-Shock[1] standard.[2]

Changes in appearance, such as paint peeling off and deformation of the camera, are not measured in Nikon's in-house test.

1 U.S. Department of Defense test method standard.
This drop test drops 5 cameras in 26 directions (8 edges, 12 corners, and 6 faces) from a height of 122 cm (4 ft) to make sure that one to five cameras pass the test (if any defect is detected during the test, another five cameras are tested to make sure that the test criteria are satisfied for one to five cameras).

2 When the lens protectors or underwater lens protectors are attached.

Notes About Waterproof and Dustproof Performance

The camera is rated equivalent to JIS/IEC waterproof class 8 (IPX8) and JIS/IEC dustproof class 6 (IP6X) and can shoot images underwater at a depth of 30 m (100 ft) for up to 60 minutes.[1, 2]

1 This rating indicates that the camera has been designed to withstand the specified water pressure for the specified period of time when the camera is used according to the methods defined by Nikon.

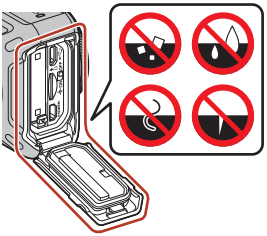
2 The camera can be used up to a water depth of about 20 m (65 ft) when the lens protectors are attached.
- The waterproof performance of this camera was tested in fresh water (swimming pools, rivers, and lakes) and salt water only.
- The inner portion of this camera is not waterproof. Water seeping inside the camera could cause the components to rust, resulting in high repair costs or irreparable damage.

Precautions When Cleaning

- Do not puncture the microphone or speaker openings with a sharp implement. If the inside of the camera is damaged, the waterproof performance will deteriorate.
- Do not use soap, neutral detergents, or chemicals such as benzene for cleaning.

Notes About Shockproof, Waterproof, and Dustproof Performance

- Do not drop the camera, strike it against a hard object such as a rock, or throw it against a water surface.
- Do not subject the camera to shock when using it underwater.
  - Do not subject the camera to water pressure by exposing it to rapids or waterfalls.
  - Do not expose to depths greater than 30 m (100 ft) underwater.
  - Make sure not to drop the camera underwater. This camera does not float in water.
- Do not continuously use the camera underwater for 60 minutes or more.
- Do not insert a wet memory card or battery in the camera.
  - Do not open the battery-chamber/memory card slot cover when the camera or your hands are wet. Doing so may cause water to seep inside the camera or result in camera malfunction.
- Do not open the battery-chamber/memory card slot cover underwater.
- If moisture such as water droplets adheres to the outside of the camera or inside of the battery-chamber/memory card slot cover, immediately wipe it off with a soft dry cloth.
  - If a foreign substance adheres to the outside of the camera or inside of the battery-chamber/memory card slot cover, immediately remove it with a blower or a soft cloth.



- Do not leave the camera in cold conditions or in hot conditions of 40°C (104°F) or more for a long period of time.
  - Doing so could cause deterioration of the waterproof performance.
  - When using the camera underwater, make sure the water temperature is from 0°C to 40°C (32°F to 104°F).
- Do not use the camera at hot springs.

Before Using the Camera Underwater

Check the items below before using the camera underwater.

- Make sure that there are no foreign substances inside the battery-chamber/memory card slot cover.
- Make sure that the waterproofing packing of the battery-chamber/memory card slot cover is not cracked or deformed.
  - Make sure that the waterproofing packing is not detached from the camera.
- Make sure that the battery-chamber/memory card slot cover is firmly closed.
  - Make sure that the battery-chamber/memory card slot cover latch is in the LOCK position (📖6).

Notes About Operating Temperature, Humidity, and Condensation

The operation of this camera has been tested at temperatures from −10°C to +40°C (14°F to 104°F).

When you use the camera in cold climate regions or at high altitudes, observe the following precautions.

- Battery performance deteriorates temporarily when cold. Keep the camera and batteries warm under your clothing before use.

● Environmental conditions that are likely to cause condensation

Fogging (condensation) may occur on the inside of the lenses, lens protectors, or underwater lens protectors when there are sharp temperature changes or high humidity, such as in the environmental conditions described below. This is not a malfunction or defect.

- The camera is suddenly immersed in cold water after being in a hot place on land.
- The camera is brought to a warm place such as inside a building after being in the cold outdoors.
- The battery-chamber/memory card slot cover is opened or closed in a high-humidity environment.
- The camera, lens protector, or underwater lens protector are still wet when they are attached to each other.
- The camera is used for an extended period of time in a low-temperature environment.

● Clearing the fogging

- Turn off the camera and open the battery-chamber/memory card slot cover while in a place where the ambient temperature is stable (avoid places with high temperature, high humidity, sand, or dust).
  To clear the fogging on the lens, remove the battery and memory card, and leave the battery-chamber/memory card slot cover open to allow the camera to adjust to the ambient temperature. When a lens protector or underwater lens protector is fogged, remove the protector, and attach it to the camera again after the fogging has cleared.

Inspection and Repair

- If the camera is exposed to shock, it is recommended to consult your retailer or Nikon-authorized service representative to confirm the waterproof performance (charged service).
- If the waterproofing packing begins to deteriorate, consult your retailer or Nikon-authorized service representative. The waterproof performance of the waterproofing packing may start to deteriorate after one year.
- If water seeps inside the camera, immediately stop using it and take it to your Nikon-authorized service representative.

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Parts of the Camera

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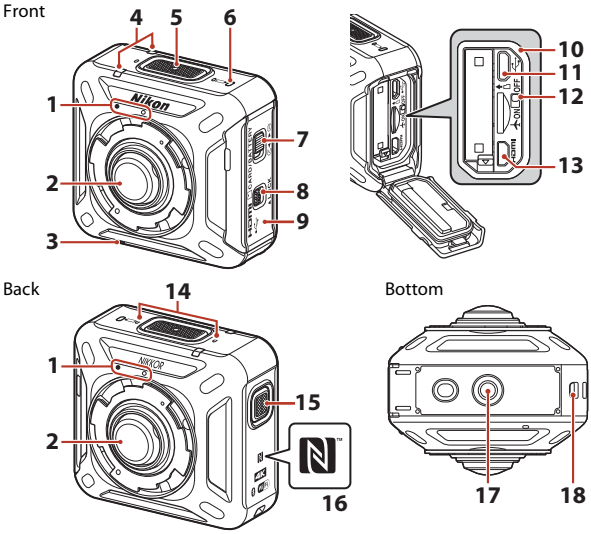
The Camera Body



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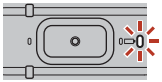
Lamp Display

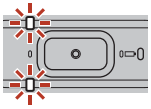
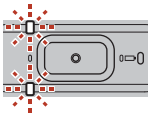
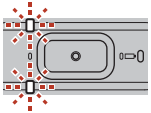
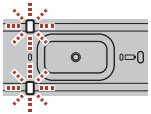
You can check the status of the camera by looking at the lamps.

Use **Camera ➔ Camera settings ➔ LED brightness** in the SnapBridge 360/170 app (27) to change the brightness of the lamps.

Power-On Lamp

Status	Color	Description
 On	Green	• The battery level is within 30% to 100%. • The camera is detecting a computer.
	Orange	The battery level is within 10% to 30%.
Flashing	Green	• The battery is charging. Turns off when charging is complete. • The camera is connected to a computer with a USB cable.
	Red	The battery is exhausted. Charge or replace the battery (8).
Quick flashing	Green	The battery cannot be charged (8).
Off	–	The camera is off.

Status Lamp

Status	Color	Description
 On at the same time	Green	The camera is connected to a TV with an HDMI cable.
	Red	The camera is recording a movie.
 Alternately flashing	Green	The camera is on standby for pairing (11).
 Flashing at the same time	Green	• Pairing is complete. • The camera is capturing a still image. • The self-timer is counting down.
	Red	• The camera is saving a movie. • Pairing failed.
	Red/Green	The firmware is being updated.
 Quick flashing at the same time	Red	• A memory card is not inserted (6). • The inside of the camera has become hot. The camera turns off automatically. Wait until the camera or battery temperature has cooled before resuming use. • The firmware version update failed.

Getting Started

Inserting the Battery and Memory Card 6
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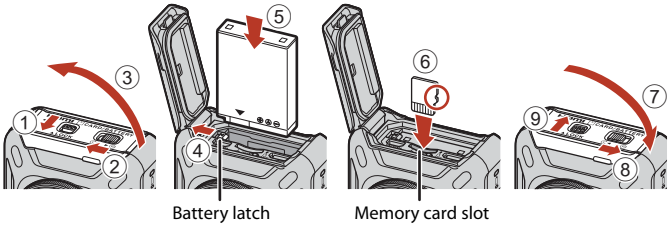
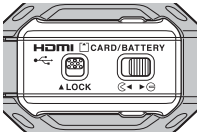
Inserting the Battery and Memory Card



- Unlock the battery-chamber/memory card slot cover latch (①), move the battery-chamber/memory card slot cover latch release to the ⋖ position (②), and then open the battery-chamber/memory card slot cover (③).
- With the battery's positive and negative terminals oriented correctly, move the orange battery latch (④), and fully insert the battery (⑤).
- Slide the memory card in until it clicks into place (⑥).
- Be careful not to insert the battery or memory card upside-down or backward, as this could cause malfunction or damage to the camera or memory card.
- Close the cover (⑦), move the battery-chamber/memory card slot cover latch release to the ▸⊖ position (⑧), and then move the battery-chamber/memory card slot cover latch to the LOCK position (⑨).
- Check that the battery-chamber/memory card slot cover latch and battery-chamber/memory card slot cover latch release are positioned as shown in the figure on the right, and that their orange indicator marks are not visible.



Notes About Waterproof and Dustproof Performance

See "Notes About Shockproof, Waterproof, and Dustproof Performance" (xv) for more information.

Formatting a Memory Card

The first time you insert a memory card that has been used in another device into this camera, make sure to format it with this camera.

- **Note that formatting a memory card permanently deletes all images and other data on the memory card.** Be sure to make copies of any images you wish to keep before formatting the memory card.
- Insert the memory card into the camera, and select **Camera → Camera settings → Format card** in the SnapBridge 360/170 app (📖27).

Removing the Battery or Memory Card

Turn the camera off and make sure that the power-on lamp and status lamps have turned off, and then open the battery-chamber/memory card slot cover.

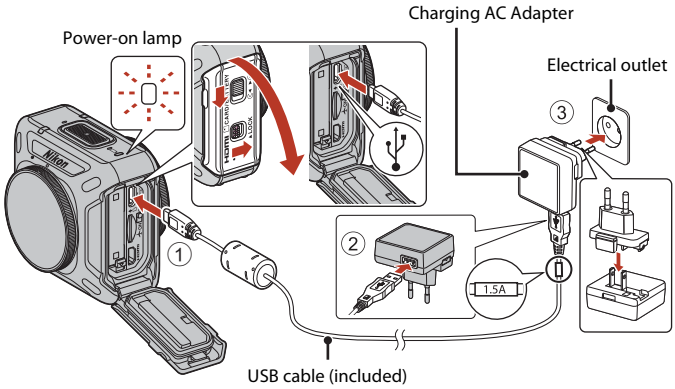
- Move the battery latch to eject the battery.
- Gently push the memory card into the camera to partially eject the memory card.
- Be careful when handling the camera, battery, and memory card immediately after using the camera, as they may be hot.
- To prevent yourself from accidentally pressing the movie button or photo button and unintentionally shooting, we recommend that you take out the battery when carrying the camera.

Memory Cards That Can Be Used

The camera supports microSD, microSDHC, and microSDXC memory cards.

- UHS-I is supported.
- microSDXC memory cards with an SD Speed Class rating of 6 or faster are recommended for recording movies.
  - Memory cards with a UHS Speed Class rating of 3 or faster are recommended when the image size/frame rate is **2160/24p** (4K UHD) or **1920/24p**.
  - When using a memory card with a lower Speed Class rating, movie recording may stop unexpectedly.
- If you use a card reader, make sure that it is compatible with your memory card.
- Contact the manufacturer for information on features, operation, and limitations on use.

Charging the Battery



If a plug adapter* is included with your camera, securely connect it to the Charging AC Adapter. Once the two are connected, attempting to forcibly remove the plug adapter could damage the product.

* The shape of the plug adapter varies according to the country or region in which the camera was purchased.
This step can be omitted if the plug adapter comes permanently bonded to the Charging AC Adapter.

- Charging starts when the camera is connected to an electrical outlet while the battery is inserted, as shown in the illustration. The power-on lamp slowly flashes green while the battery is charging.
- When charging is complete, the power-on lamp turns off. Unplug the Charging AC Adapter from the electrical outlet, and disconnect the USB cable.
  Charging time is about 2 hours and 20 minutes for a fully exhausted battery.
- The battery cannot be charged when the power-on lamp quickly flashes green, possibly due to one of the reasons described below.
  - The ambient temperature is not suited to charging.
  - The USB cable or Charging AC Adapter is not properly connected.
  - The battery is damaged.

Notes About the USB Cable

- Do not use a USB cable other than the UC-E21. Using a USB cable other than the UC-E21 could result in overheating, fire or electric shock.
- Check the shape and direction of the plugs and do not insert or remove the plugs at an angle.

Notes About Charging with the Charging AC Adapter

The camera can be operated while the battery is charging, but the charging time increases.

Notes About Charging with a Computer

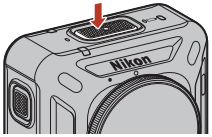
When **Camera ➔ Camera settings ➔ Charge by computer** is set to **Auto** in the SnapBridge 360/170 app (27), connecting the camera to a computer that is running will automatically charge the battery inserted into the camera using power supplied by the computer.

- When connected to a computer, the camera turns on and starts charging. The camera cannot be operated with buttons during this time.
- About 3 hours and 30 minutes are required to charge a fully exhausted battery. Charging time increases when images are transferred while the battery is charging.
- The camera turns off automatically if there is no communication with the computer for 30 minutes after the battery has finished charging.

Turning the Camera On or Off

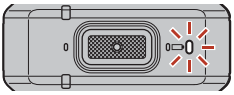
Turning On the Camera

- Press and hold down the movie button for about 3 seconds to turn on the camera.



- Shooting starts when the camera turns on by pressing the movie button or photo button.

- When the camera turns on, the power-on lamp turns on.
- You can check the battery level by looking at the power-on lamp (📖3) or the SnapBridge 360/170 app screen.



Power-on lamp

Turning Off the Camera

- If you press and hold down the movie button for about 3 seconds when the camera is on, the camera turns off.
- By default, if the camera is not operated for about 30 seconds, the camera turns off automatically (auto off). You can change the setting using the SnapBridge 360/170 app.

- When the camera turns off, the power-on lamp turns off.

Turning Off the Camera During Remote Photography

The buttons of the camera are disabled during remote photography with the SnapBridge 360/170 app. To turn off the camera, exit remote photography.

See the SnapBridge 360/170 app online help for details about remote photography.

Pairing with a Smartphone or Tablet

Here, pairing refers to the setting used to connect the camera and smartphone or tablet (below, "smart device") through Bluetooth.

- The smart device screen and buttons may differ from the actual screen.

Preparing for Pairing

Prepare for pairing in advance.

- **Smart device:**
  - Install the SnapBridge 360/170 app on your smart device (📖v).
  - Enable Bluetooth and Wi-Fi on the smart device.
  - When using NFC on an NFC-compatible Android device, enable NFC.
- **Camera:**
  - Turn off the camera (📖10). The camera cannot enter pairing standby mode when the camera is on.
  - Turn off the airplane mode switch (📖2). You cannot pair when it is on.

Start pairing when preparations are complete.

The pairing procedure varies depending on how you use the camera. Proceed from "Initial Pairing" (📖12) or "Re-pairing" (📖14).

Initial Pairing

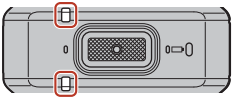
Perform initial pairing in the following situations:

- When pairing for the first time after purchasing the camera
- When pairing for the first time after updating the camera's firmware

1 Prepare for pairing (11).

2 Press the movie button or photo button to put the camera into pairing standby mode.

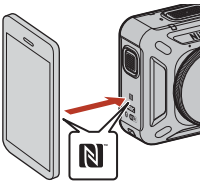
- When the status lamps flash green at the same time for a while and then alternately flash green, the camera enters pairing standby mode.
- If the camera cannot find the smart device, the camera turns off automatically after remaining in pairing standby mode for about 4 minutes.



Status lamps

3 Start pairing.

- **For iOS or NFC-incompatible Android devices:** Start the SnapBridge 360/170 app.
- **For NFC-compatible Android devices:** Tap the NFC antenna of the smart device to the N (N-Mark) on the camera to start the SnapBridge 360/170 app.
  When **Camera name acquired. Connect?** is displayed, select **OK** and proceed to step 5.
  If the SnapBridge 360/170 app download site is displayed on the smart device screen, repeat this operation after installation.

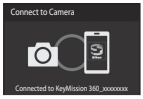


4 Follow the on-screen instructions and when the screen shown on the right is displayed, tap **KeyMission 360_xxxxxxxx**.

- "xxxxxxxx" varies depending on the camera.

5 When a confirmation dialog for pairing is displayed, tap **Pairing** on the lower right of the screen (the button name varies depending on the model of the smart device).

- If pairing is successful, the screen shown on the right is displayed.
- If pairing is successful, the smart device is automatically paired simply by starting the SnapBridge 360/170 app when the camera is turned on next time (except when **End pairing** is selected).
- If pairing fails, the status lamps flash red six times at the same time. When a message indicating that pairing has failed is displayed on the screen, tap **OK** and repeat the procedure from step 1.

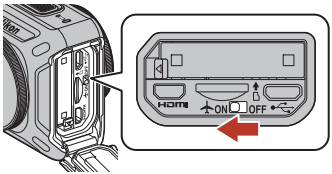


For iOS or NFC-incompatible Android devices

For NFC-compatible Android devices

Where the Use of Wireless Devices Is Prohibited

Turn on the airplane mode switch on the camera. This will temporarily interrupt the constant connection with the smart device, but the connection is automatically re-established when airplane mode is turned off.



The Display Language

The display language of the SnapBridge 360/170 app is automatically set according to the display language of the smart device. If the display language of the smart device is not supported by the SnapBridge 360/170 app, it is set to English.

Shooting/Playback/Setting with the SnapBridge 360/170 App

See the SnapBridge 360/170 app online help for more information.

Re-pairing

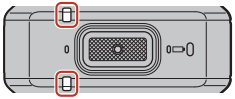
Perform re-pairing in the following situations:

- When pairing the same smart device again after unpairing using **End pairing** in the SnapBridge 360/170 app
- When pairing with a second smart device or more

1 Prepare for pairing (📖11).

2 Press and hold down the movie button for about 7 seconds to put the camera into pairing standby mode.

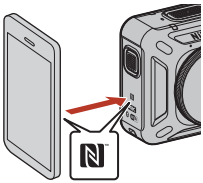
- When the status lamps flash green at the same time for a while and then alternately flash green, the camera enters pairing standby mode.
- If the camera cannot find the smart device, the camera turns off automatically after remaining in pairing standby mode for about 4 minutes.



Status lamps

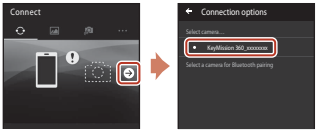
3 Start pairing.

- **For iOS or NFC-incompatible Android devices:** Start the SnapBridge 360/170 app.
- **For NFC-compatible Android devices:** Tap the NFC antenna of the smart device to the N (N-Mark) on the camera to start the SnapBridge 360/170 app.
  When **Camera name acquired. Connect?** is displayed, select **OK** and proceed to step 5.
  If the SnapBridge 360/170 app download site is displayed on the smart device screen, repeat this operation after installation.



4 Tap ➔ in ⟳ **Connect**, and then tap **KeyMission360_xxxxxxxx** on the displayed screen.

- "xxxxxxxx" varies depending on the camera.



5 When a confirmation dialog for pairing is displayed, tap **Pairing** on the lower right of the screen (the button name varies depending on the model of the smart device).

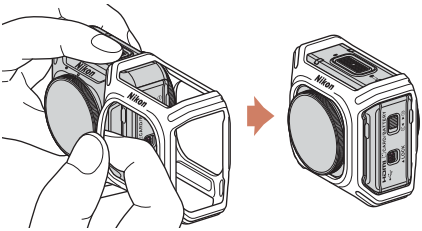
- If pairing is successful, the screen shown on the right is displayed.
- If pairing fails, the status lamps flash red six times at the same time. When a message indicating that pairing has failed is displayed on the screen, tap **OK** and repeat the procedure from step 1.

Attaching the Silicone Jacket

We recommend attaching the silicone jacket to soften physical impacts to the camera.

Attach by inserting the camera from the side of the silicone jacket so that the Nikon logos of the camera and silicone jacket overlap.

- If the Nikon logos do not overlap, the silicone jacket may appear in the images.
- When using the camera underwater, remove the silicone jacket because it may shift out of place and appear in the images.



Notes About the Silicone Jacket

- The silicone jacket is made of silicone. Cracking may occur from areas that are damaged.
- The silicone jacket may stretch or break if subjected to excessive force.
- Do not store in locations exposed to direct sunlight or high temperatures or humidity.
- Wash in fresh water only.
- Do not clean with hard brushes or with alcohol, thinner, or other volatile substances.
- This silicone jacket cannot completely protect the camera or lenses from falls or other physical shocks.

The Lens Protector/Underwater Lens Protector

Make sure to attach the lens protectors or underwater lens protectors to protect the lens because they are made of glass.

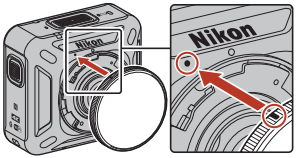
- Lens protector:
  Used to protect the lens (attached to the camera at time of factory shipment). Although the camera can be used underwater because it is waterproof, captured images may be blurred. The lens protectors can be used up to a water depth of about 20 m (65 ft).

- Underwater lens protector:
  The camera can focus easily for shooting underwater. The underwater lens protectors can be used up to a water depth of 30 m (100 ft).

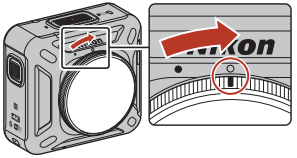
Attaching the Lens Protectors/Underwater Lens Protectors

The lens protectors are used here as an example. Turn off the camera before attachment or removal.

1 Align the marks of the lens protector and camera (●).



2 Rotate the lens protector to align the mark of the lens protector and mark at the center of the camera (○).



- Check that the protector is securely attached.
- Attach the same type of protector to both lenses.
- For removal, follow the procedure for attachment in reverse order.

Notes About the Lens Protectors and Underwater Lens Protectors

- Be careful not to subject the protectors to physical impacts or rubbing. Doing so could cause scratches or damage.
- When you are not using the camera, insert it into a case made of soft cloth material with the lens protectors or underwater lens protectors attached.

Notes About Attaching the Lens Protector or Underwater Lens Protector

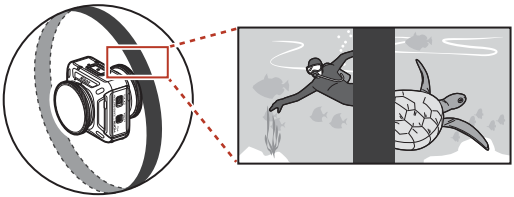
Use a soft cloth or air duster to remove foreign substances such as water or dust from the camera, lens protector, or underwater lens protector. If the camera, lens protector, or underwater lens protector are still wet when they are attached to each other, this could cause condensation.

Notes About the Underwater Lens Protectors

When the underwater lens protectors are attached, there are black borders or bands in the images because the protectors appear in the images.

Using the Camera Underwater

- Set **Underwater** in the SnapBridge 360/170 app to **Yes** (📖29).
- Wireless communication is not available when the camera is underwater.
- There are shooting ranges that cannot be captured underwater because the images are magnified compared to images captured on land. Therefore you cannot capture 360° content.



Visualization of shooting underwater with the underwater lens protectors attached

Using the Camera

Recording Movies or Shooting Still Images 20
Selecting a Movie Mode 23
Playing Back Images 25
Changing the Settings 27
Using the Base Adapter and Base Mount 30

Recording Movies or Shooting Still Images

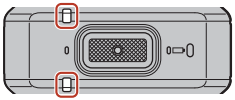
Before shooting, check the orientation of the camera (the side with the Nikon logo is the front).

- Your hands will appear in images during hand-held photography because this camera captures 360° content. To reduce the appearance of hands, use the base adapter (🕮30) to stabilize the camera and shoot.
- The camera may be unable to capture subjects within about 60 cm (2 ft) from the camera's top, bottom, or sides because the subjects are outside the angle of view (i.e., the area visible in the frame). Point the lens toward important subjects when shooting.
- If stains such as fingerprints are on the lens protector or underwater lens protector, they will appear in the images or make images look fogged. Wipe off the stains with a soft dry cloth before shooting.

Shooting with the Camera Only

1 Press the movie button or photo button.

- Pressing the movie button or photo button when the camera is off automatically turns on the camera and shooting begins.



Status lamps

- The status lamps light red at the same time while recording movies. To end movie recording, press the movie button again.
- When the photo button is pressed, the shutter sound is produced. When **Self-timer** is set to **2 s** or **10 s**, the camera beeps to indicate that the self-timer is activated, and then the shutter sound is produced. The status lamps flash green at the same time while the still image is being saved.
- You can change the volume of sounds during operation using the SnapBridge 360/170 app.

Shooting with a Smart Device

1 Pair the camera and the smart device (📖11).

2 Tap **Camera ➔ Remote photography** in the SnapBridge 360/170 app.

- When a confirmation dialog for the Wi-Fi connection is displayed, tap **OK**. For iOS, select the camera SSID under **Settings** > **Wi-Fi** to initiate a Wi-Fi connection (if prompted, enter a password; the default is "NikonKeyMission").

3 To record a movie, tap ◉. To shoot a still image, tap ◉.

- The status lamps light red at the same time while recording movies. To stop recording a movie, tap ◉.
- When ◉ is tapped, the shutter sound is produced. When **Self-timer** is set to **2 s** or **10 s**, the camera beeps to indicate that the self-timer is activated, and then the shutter sound is produced. The status lamps flash green at the same time while the still image is being saved.
- You can change the volume of sounds during operation using the SnapBridge 360/170 app.
- Still images captured are automatically sent to the smart device.

Notes About Saving Movies or Images

The status lamps light in red at the same time or flash green at the same time while movies or images are being saved. **Do not open the battery-chamber/memory card slot cover or remove the battery or memory card**. Doing this could result in loss of data, or in damage to the camera or the memory card.

Notes About Exposure

When the contrast is high between subjects in the front lens and back lens, the camera cannot obtain the appropriate exposure. Adjust the brightness using **Camera ➔ Camera settings ➔ Shooting options ➔ Shooting options ➔ Exposure compensation** in the SnapBridge 360/170 app (📖27).

Notes About the Composited Areas of Two Images

- Under some shooting conditions, the boundaries of the composited areas may be noticeable.
- Under some shooting conditions, images may not match perfectly at the composite boundaries.

Number of Images That Can Be Saved

- The approximate number of images that can be saved can be checked on the shooting screen of the SnapBridge 360/170 app.
- Note that due to JPEG compression, the number of images that can be saved may vary greatly depending on the image content, even when using memory cards with the same capacity and the same image size settings. In addition, the number of images that can be saved may vary depending on the make of the memory card.

Maximum Movie Recording Time

The available recording time for a single movie depends on the remaining space in a memory card.

- The remaining recording time for a single movie is displayed on the shooting screen of the SnapBridge 360/170 app.
- The actual remaining recording time may vary depending on the movie content, subject movement, or type of memory card.
- microSDXC memory cards with an SD Speed Class rating of 6 or faster are recommended for recording movies.
  - Memory cards with a UHS Speed Class rating of 3 or faster are recommended when the image size/frame rate is **2160/24p** (4K UHD) or **1920/24p**.
  - When using a memory card with a lower Speed Class rating, movie recording may stop unexpectedly.

Camera Temperature

- The camera may become hot when recording movies for an extended period of time or when the camera is used in a hot area.
- If the inside of the camera becomes extremely hot when recording movies, the status lamps will quickly flash red and the camera will automatically stop recording.
  After the camera stops recording, it turns itself off.
  Leave the camera off until the inside of the camera has cooled.

Movies Over 4 GB in Size

When a movie with a file size of more than 4 GB is recorded, the movie is divided into files with a maximum size of 4 GB each.

Notes About Movie Recording

Notes About Recorded Movies

- The following phenomena may be saved in movies.
  - Banding may occur in images under fluorescent, mercury-vapor, or sodium-vapor lighting.
  - Subjects that move quickly from one side of the frame to the other, such as a moving train or car, may appear skewed.
  - The entire movie image may be skewed when the camera is panned.
  - Lighting or other bright areas may leave residual images when the camera is moved.
- Depending on the distance to the subject, colored stripes may appear on subjects with repeating patterns (fabrics, lattice windows, etc.) during movie recording and playback. This occurs when the pattern in the subject and the layout of the image sensor interfere with each other; it is not a malfunction.

Selecting a Movie Mode

Select the desired type of movie to record by using **Movie mode** (28) in the SnapBridge 360/170 app.

- **Standard movie:**
  Record normal movies.
- **Superlapse movie:**
  The camera records movies and saves them in fast motion (**960/30p** or **960/25p**). Use to record a movie while moving the camera. The camera compresses the time of changes in the subject and saves the movie.
  At **6×**, a movie recorded for six minutes is played back as a one-minute movie.
- **Loop recording:**
  After recording a movie for a specified time, the camera continues recording the movie while deleting the recorded movie data from the beginning (the movie is recorded as five separate files). Only the most recent data is saved on the memory card, resulting in a movie of the specified length.
  When playing back the recorded movies saved in the camera on a TV, split movies are played back continuously.

- **Time-lapse movie:**
  The camera can automatically capture still images at a specified interval to create time-lapse movies.
  When **NTSC/PAL** (📖28) is set to **NTSC**, 300 images are captured. When set to **PAL**, 250 images are captured.

Type	Interval time	Time required for shooting	
		NTSC	PAL
2 s	2 s[2]	10 min	8 min 20 s
5 s (default setting)	5 s[2]	25 min	20 min 50 s
10 s	10 s[2]	50 min	41 min 40 s
30 s	30 s[2]	2 h 30 min	2 h 5 min
Night sky[1]	30 s	2 h 30 min	2 h 5 min

[1] Suited for recording the movement of stars.
[2] The exposure lock (**Yes** or **No** for **AE lock only**) can be set.

Notes About Time-lapse Movie

- If the battery is not sufficiently charged, the camera may not be able to capture all of the images.
- Use a tripod to stabilize the camera when recording time-lapse movies.
- Sound is not recorded.

Playing Back Images

Playing Back Images Saved in the Camera

1 Pair the camera and the smart device (📖11).

2 Tap **Camera → Download selected pictures** in the SnapBridge 360/170 app.

- When a confirmation dialog for the Wi-Fi connection is displayed, tap **OK**. For iOS, select the camera SSID under **Settings** > **Wi-Fi** to initiate a Wi-Fi connection (if prompted, enter a password; the default is "NikonKeyMission").
- Multiple images saved in the camera are displayed.

3 Tap the image that you want to play back.

- To transfer images to the smart device, follow the procedures described below while playing them back.
  - For iOS: Tap **Download**, and then follow the on-screen instructions.
  - For Android: Tap → **Download**, and then follow the on-screen instructions.

Playing Back Images Transferred to a Smart Device

1 Tap **Gallery** in the SnapBridge 360/170 app.

2 Select **Latest download** or **Pictures on device**.

- **Latest download**: Multiple new images transferred from the camera are displayed.
- **Pictures on device**: All images transferred from the camera are displayed.

3 Tap the image that you want to play back, and then tap ▶ on the displayed screen.

- The image is played back. Drag the screen during playback to move the point of view.
- You can also edit images such as cropping. See the SnapBridge 360/170 app online help for details.

Editing Images on a Computer

If you transfer captured images to a computer, you can edit the images using KeyMission 360/170 Utility.

See the KeyMission 360/170 Utility online help for more information.

Changing the Settings

Perform the following operations in the SnapBridge 360/170 app to change the camera settings.

Pair the camera and smart device in advance (📖11).

- **Camera ➔ Camera settings**

Option	Description
Date and time	Set the camera clock.
Sound settings	Set the volume of sounds during operation. • **High**, **Normal** (default setting), **Low**, **Off**
Auto off	Set the amount of time that elapses after shooting until the camera turns off. • **2 s**, **5 s**, **30 s** (default setting), **1 min**, **5 min**
Format card	Format a memory card.
LED brightness	Set the brightness of the lamps. • **High**, **Normal** (default setting), **Low**, **Off**
Charge by computer	Set whether or not the battery in the camera is charged when the camera is connected to a computer.
Image Comment	A comment registered with **Input comment** is attached to images.
Copyright information	Copyright information registered with **Artist** and **Copyright** is attached to images.
Location data	Set whether or not to add shooting location information to the images that you take.
Reset all	Reset the camera's settings to their default values.
Firmware version	View the current camera firmware version.

Option			Description
Network menu			Configure the wireless network settings to connect the camera and a smart device.
	Send while shooting		Set whether to automatically upload captured images to a smart device. Movies cannot be uploaded using **Send while shooting**. To transfer movies to a smart device, use the SnapBridge 360/170 app.
	Wi-Fi		Configure Wi-Fi connection settings.
	Bluetooth		Configure Bluetooth connection settings.
	Restore default settings		Restore all **Network menu** settings to their default values.
Shooting options			Change settings related to shooting.
	Movies	Movie mode (📖23)	Select the desired movie option to record. • **Standard movie** • **Superlapse movie**: **2×**, **4×**, **6×**, **10×**, **15×** • **Loop recording**: **5 min**, **10 min**, **30 min**, **60 min** • **Time-lapse movie**: **2 s**, **5 s**, **10 s**, **30 s**, **Night sky**
		Movie options	Set the movie image size. • When **NTSC/PAL** is set to **NTSC** **2160/24p**, **1920/24p** (default setting), **960/30p**, **640/120p**, **320/240p** • When **NTSC/PAL** is set to **PAL** **2160/24p**, **1920/24p** (default setting), **960/25p**, **640/100p**, **320/200p**
		NTSC/PAL	Select the frame rate used when recording movies.
		Wind noise reduction	Set whether or not to reduce wind noise during movie recording.
	Still images	Image size	Set the still image size. • **7744×3872** (default setting), **3872×1936**
		Self-timer	Automatically capture still images when a preset time has elapsed. • **Off**, **2 s** (default setting), **10 s**

Option			Description
	Shooting options	Underwater	Set to **Yes** when shooting underwater.
		Active D-Lighting	Reduce the loss of details in highlights and shadows.
		White balance	Adjust white balance to suit the light source in order to make the colors in images match what you see with your eyes. • **Auto** (default setting): White balance is automatically adjusted. • **Daylight**: Use under direct sunlight. • **Incandescent**: Use under incandescent lighting. • **Fluorescent**: Use under fluorescent lighting. • **Cloudy**: Use under overcast skies.
		Color options	Change the color tone of images that will be saved. • **Standard** (default setting): Standard processing for balanced results. Recommended for most situations. • **Vivid**: Images are enhanced for a vivid, photoprint effect. Select for images that emphasize primary colors, such as blue, red, and green. • **Monochrome**: Images are captured in black-and-white.
		Exposure compensation	Adjust overall image brightness (–2.0 – +2.0 EV in steps of 1/3 EV).
		Restore default settings	Restore all **Shooting options** settings to their default values.

- **Camera ➔ Remote options**

Option	Description
Choose connection	Select **Camera & smart device** or **Camera & remote**.
Pair remote	Use to register a remote control that is not paired with the camera, to the camera.

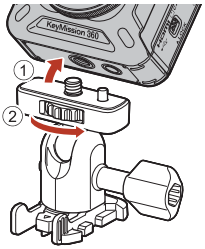
- Certain menu options cannot be set depending on the state of the camera.
- See the SnapBridge 360/170 app online help for more information.

Using the Base Adapter and Base Mount

Attaching the base adapter to the camera allows you to use special accessories such as a base mount.

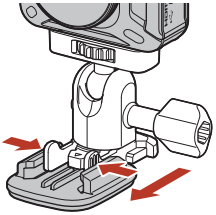
- To increase the adhesive strength, attach the base mount for 24 hours or longer before using the camera.

1 Align the camera screw with the tripod socket of the camera (①), and tighten the screw knob (②).

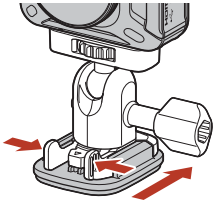


2 Attach the buckle of the base adapter to the base mount.

- While holding the two protrusions of the buckle at the same time, slide the buckle until it clicks into place.

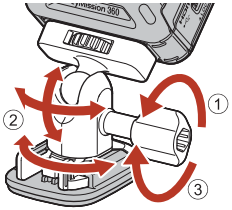


- When removing the buckle, hold the two protrusions at the same time, and slide them in the direction opposite of that for attachment.



3 Adjust the camera angle.

- Loosen the plate lock (①), set the camera angle (②), and then tighten the lock (③).



4 Make sure that there are no foreign substances on the surface to which the base mount will be attached.

- If there are foreign substances such as dust or water, remove them.

5 Peel off the release liner from the back of the base mount, and firmly press the base mount so that the entire surface is attached.

Base Mount

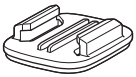
The base mount is an accessory that is used to easily attach and detach a base adapter mounted with the camera.

Attach the base mount to places where you want to mount the camera.

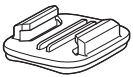
Use the flat or curved type depending on the surface to which the base mount will be attached.

The base mount is not designed for use on vehicles. Do not attach it on vehicles.

- **Base mount (flat):**
  Use to attach to flat surfaces.



- **Base mount (curved):**
  Use to attach to curved surfaces such as helmets.



Notes About Using the Base Adapter and Base Mount

- Do not use the base adapter and base mount so that they are subjected to sudden loads, such as directly attaching them to skis or snowboards. Subjecting them to sudden loads will damage the accessories or detach the base mount.
- You cannot reuse a base mount after it has been attached and then removed.
- The surface may be damaged or the paint may peel off depending on the material to which the base mount is attached. Care should be taken when attaching the base mount.
- The base mount is not suited for attachment to surfaces made of rough material such as wood or concrete.

Connecting the Camera to a TV or Computer

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Utilizing Images

In addition to using the SnapBridge 360/170 app (v) to enjoy the captured images, you can also utilize the images in various ways by connecting the camera to the devices described below.

Viewing Images on a TV

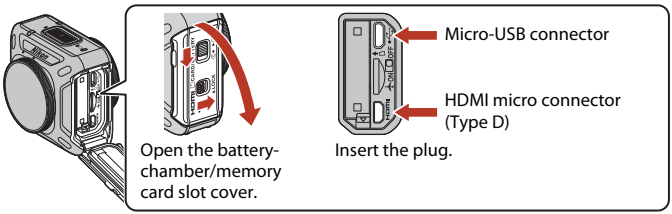
Images and movies captured with the camera can be viewed on a TV.
Connection method: Connect a commercially available HDMI cable to the TV's HDMI input jack.

Transferring Images to a Computer (KeyMission 360/170 Utility)

You can transfer images and movies to a computer for viewing and editing.
Connection method: Connect the camera to the computer's USB port with the USB cable.

- Before connecting to a computer, install KeyMission 360/170 Utility on the computer.

Notes About Connecting Cables to the Camera

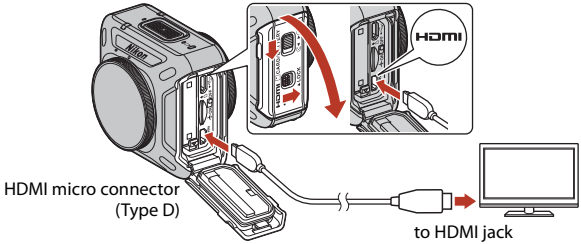


- Make sure to turn the camera off before connecting or disconnecting cables. Check the shape and direction of the plugs and do not insert or remove the plugs at an angle.
- Make sure that the camera battery is sufficiently charged. If the EH-62F AC Adapter (available separately) is used, this camera can be powered from an electrical outlet. Do not, under any circumstances, use an AC adapter other than the EH-62F. Failure to observe this precaution could result in overheating or damage to the camera.
- For information about the connection methods and subsequent operations, refer to the documentation included with the device in addition to this document.

Viewing Images on a TV

1 Turn off the camera and connect it to the TV.

- Check the shape and direction of the plugs and do not insert or remove the plugs at an angle.



2 Set the TV's input to external input.

- See the documentation provided with your TV for details.

3 Turn the camera on.

- Images are displayed on the TV.
- TV remote controls that support HDMI-CEC are capable of selecting images, playing back/stopping movies, moving the point of view, etc. Point the remote control at the TV when operating the remote control.

Notes About Playing Back on a TV

- The point of view cannot be moved smoothly on TV screens.
- Images displayed on TV screens are rough because parts of images saved in the camera are zoomed in.

Transferring Images to a Computer (KeyMission 360/170 Utility)

Installing KeyMission 360/170 Utility

KeyMission 360/170 Utility is free software that enables you to transfer images and movies to your computer for viewing and editing.

You can also change the camera's settings.

To install KeyMission 360/170 Utility, download the latest version of the KeyMission 360/170 Utility installer from the following website and follow the on-screen instructions to complete installation.

KeyMission 360/170 Utility: http://downloadcenter.nikonimglib.com

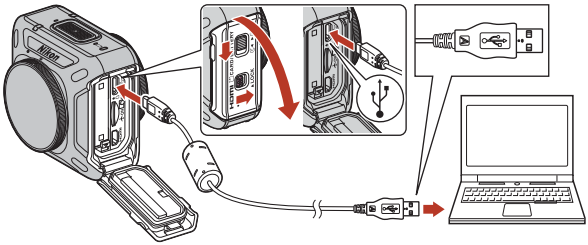
For system requirements and other information, see the Nikon website for your region.

Transferring Images to a Computer

1 Prepare a memory card that contains images.

You can use any of the methods below to transfer images from the memory card to a computer.

- **SD memory card slot/card reader**: Insert the memory card into the card slot of your computer or the card reader (commercially available) that is connected to the computer.
- **Direct USB connection**: Turn the camera off and ensure that the memory card is inserted in the camera. Connect the camera to the computer using the USB cable. The camera automatically turns on.



Notes About Connecting the Camera to a Computer

Disconnect all other USB-powered devices from the computer. Connecting the camera and other USB-powered devices to the same computer simultaneously may cause a camera malfunction or excessive power supply from the computer, which could damage the camera or memory card.

2 Start KeyMission 360/170 Utility.

- Images saved in the camera are displayed.
- If the memory card contains a large number of images, it may take a while for KeyMission 360/170 Utility to start. Wait until KeyMission 360/170 Utility starts.

3 Select the images that you want to transfer, and click .

- When the storage destination of the images is selected on the screen that is displayed, image transfer begins.

4 Terminate the connection.

- If you are using a card reader or card slot, choose the appropriate option in the computer operating system to eject the removable disk corresponding to the memory card and then remove the memory card from the card reader or card slot.
- If the camera is connected to the computer, turn the camera off and disconnect the USB cable.

Notes About Connecting the USB Cable

Operation is not guaranteed if the camera is connected to the computer via a USB hub.

Using KeyMission 360/170 Utility

See the KeyMission 360/170 Utility online help for more information.

ViewNX-i

Free software ViewNX-i also enables you to transfer images and movies to your computer. Download the software from our Download Center at the URL below.

http://downloadcenter.nikonimglib.com

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Notices

Notices for Customers in the U.S.A.

**IMPORTANT SAFETY INSTRUCTIONS -
SAVE THESE INSTRUCTIONS.**

DANGER - TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, CAREFULLY FOLLOW THESE INSTRUCTIONS

For connection to a supply not in the U.S.A., use an attachment plug adapter of the proper configuration for the power outlet if needed.

The power supply unit is intended to be correctly orientated in a vertical or floor mount position.

Federal Communications Commission (FCC) Radio Frequency Interference Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

CAUTIONS

Modifications

The FCC requires the user to be notified that any changes or modifications made to this device that are not expressly approved by Nikon Corporation may void the user's authority to operate the equipment.

Interface Cables

Use the interface cables sold or provided by Nikon for your equipment. Using other interface cables may exceed the limits of Class B Part 15 of the FCC rules.

Notice for Customers in the State of California

WARNING

Handling the cord on this product will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm.

Wash hands after handling.

Nikon Inc.,
1300 Walt Whitman Road, Melville, New York 11747-3064, U.S.A.
Tel: 631-547-4200

Notice for Customers in Canada

CAN ICES-3 B / NMB-3 B

Notices for Customers in Europe

CAUTIONS

RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE.

DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

This symbol indicates that electrical and electronic equipment is to be collected separately.

The following apply only to users in European countries:

- This product is designated for separate collection at an appropriate collection point. Do not dispose of as household waste.
- Separate collection and recycling helps conserve natural resources and prevent negative consequences for human health and the environment that might result from incorrect disposal.
- For more information, contact the retailer or the local authorities in charge of waste management.

This symbol on the battery indicates that the battery is to be collected separately.

The following apply only to users in European countries:

- All batteries, whether marked with this symbol or not, are designated for separate collection at an appropriate collection point. Do not dispose of as household waste.
- For more information, contact the retailer or the local authorities in charge of waste management.

Notes About Wireless Communication Functions

Restrictions on Wireless Devices

The wireless transceiver included in this product conforms to wireless regulations in the country of sale and is not for use in other countries (products purchased in the EU or EFTA can be used anywhere within the EU and EFTA). Nikon does not accept liability for use in other countries. Users who are unsure as to the original country of sale should consult with their local Nikon service center or Nikon-authorized service representative. This restriction applies to wireless operation only and not to any other use of the product.

Security

Although one of the benefits of this product is that it allows others to freely connect for the wireless exchange of data anywhere within its range, the following may occur if security is not enabled:

- Data theft: Malicious third-parties may intercept wireless transmissions to steal user IDs, passwords, and other personal information.
- Unauthorized access: Unauthorized users may gain access to the network and alter data or perform other malicious actions. Note that due to the design of wireless networks, specialized attacks may allow unauthorized access even when security is enabled. Nikon is not responsible for data or information leaks that may occur during data transfer.
- Do not access networks that you are not permitted to use, even if they are displayed on your smartphone or tablet. Doing so may be regarded as unauthorized access. Only access networks that you are permitted to use.

Personal Information Management and Disclaimer

- User information registered and configured on the product, including wireless LAN connection settings and other personal information, is susceptible to alteration and loss resulting from operational error, static electricity, accident, malfunction, repair or other handling. Always keep separate copies of important information. Nikon is not responsible for any direct or indirect damages or lost profits resulting from alteration or loss of content that is not attributable to Nikon.
- Before discarding this product or transferring it to another owner, perform **Camera ➔ Camera settings ➔ Reset all** in the SnapBridge 360/170 app (📖27) to delete all user information registered and configured with the product, including wireless LAN connection settings and other personal information.
- Nikon is not responsible for any damages resulting from unauthorized use of this product by third parties in the event that the product is stolen or lost.

Precautions When Exporting or Carrying This Product Abroad

This product is controlled by the United States Export Administration Regulations (EAR). The permission of the United States government is not required for export to countries other than the following, which as of this writing are subject to embargo or special controls: Cuba, Iran, North Korea, Sudan, and Syria (list subject to change).

Notice for Customers in the U.S.A. and Canada

Federal Communications Commission (FCC) and Industry of Canada (IC)

Declaration of Conformity

This device complies with Part 15 of FCC Rules and Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of this device.

FCC/IC RF Exposure Statement

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

The available scientific evidence does not show that any health problems are associated with using low power wireless devices. There is no proof, however, that these low power wireless devices are absolutely safe. Low power wireless devices emit low levels of radio frequency energy (RF) in the microwave range while being used. Whereas high levels of RF can produce health effects (by heating tissue), exposure of low-level RF that does not produce heating effects causes no known adverse health effects. Many studies of low-level RF exposures have not found any biological effects. Some studies have suggested that some biological effects might occur, but such findings have not been confirmed by additional research.

KeyMission 360, which is equipped with a TYPE1FJ (FCC ID:VPYLB1FJ / IC ID:772C-LB1FJ) Wireless LAN Module, has been tested and found to comply with FCC/IC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65 and RSS-102 of the IC radio frequency (RF) Exposure rules. Please refer to the SAR test report that was uploaded to FCC website.

Notice for Customers in Europe

Declaration of Conformity (Europe)

Hereby, Nikon Corporation, declares that KeyMission 360 is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC. The declaration of conformity may be consulted at http://imaging.nikon.com/support/pdf/DoC_KeyMission_360.pdf.

Notice for Customers in Singapore

This device complies with radio-frequency regulations.

Complies with IDA Standards DA103423

Caring for the Product

Observe the precautions described below in addition to the warnings in "For Your Safety" (📖x-xiii), "<Important> Notes About Shockproof, Waterproof, and Dustproof Performance and Condensation" (📖xiv), and "Notes About Wireless Communication Functions" (📖41) when using or storing the device.

The Camera

Do Not Apply Strong Impact to the Camera

The product may malfunction if subjected to strong shock or vibration. In addition, do not touch or apply force to the lens.

Avoid Sudden Changes in Temperature

Sudden changes in temperature, such as when entering or leaving a heated building on a cold day, can cause condensation to form inside the device. To prevent condensation, place the device in a carrying case or a plastic bag before exposing it to sudden changes in temperature.

Keep Away from Strong Magnetic Fields

Do not use or store this device in the vicinity of equipment that generates strong electromagnetic radiation or magnetic fields. Doing so could result in loss of data or camera malfunction.

Do Not Point the Lens at Strong Light Sources for Extended Periods

Avoid pointing the lens at the sun or other strong light sources for extended periods when using or storing the camera. Intense light may cause the image sensor to deteriorate or produce a white blur effect in photographs.

Turn the Product Off Before Removing or Disconnecting the Power Source or Memory Card

Do not remove the battery while the product is on, or while images are being saved or deleted. Forcibly cutting power in these circumstances could result in loss of data or in damage to the memory card or internal circuitry.

The Battery

Precautions for Use

- Note that the battery may become hot after use.
- Do not use the battery at ambient temperatures below 0°C (32°F) or above 40°C (104°F) as this could cause damage or malfunction.
- If you notice any abnormalities such as excessive heat, smoke, or an unusual smell coming from the battery, immediately discontinue use and consult your retailer or Nikon-authorized service representative.
- After removing the battery from the camera or optional battery charger, put the battery in a plastic bag, etc. in order to insulate it.

Charging the Battery

Check the battery level before using the camera and replace or charge the battery if necessary.

- Charge the battery indoors with an ambient temperature of 5°C to 35°C (41°F to 95°F) before use.
- A high battery temperature may prevent the battery from charging properly or completely, and may reduce battery performance. Note that the battery may become hot after use; wait for the battery to cool before charging.
  When charging the battery inserted into this camera using the Charging AC Adapter or a computer, the battery is not charged at battery temperatures below 0°C (32°F) or above 50°C (122°F).
- Do not continue charging once the battery is fully charged as this will result in reduced battery performance.
- The battery temperature may increase during charging. However, this is not a malfunction.

Carrying Spare Batteries

Whenever possible, carry fully charged spare batteries when taking pictures on important occasions.

Using the Battery When Cold

On cold days, the capacity of batteries tends to decrease. If an exhausted battery is used at a low temperature, the camera may not turn on. Keep spare batteries in a warm place and exchange as necessary. Once warmed, a cold battery may recover some of its charge.

Battery Terminals

Dirt on the battery terminals may prevent the camera from functioning. Should the battery terminals become dirty, wipe them off with a clean, dry cloth before use.

Charging an Exhausted Battery

Turning the camera on or off while an exhausted battery is inserted in the camera may result in reduced battery life. Charge the exhausted battery before use.

Storing the Battery

- Always remove the battery from the camera or optional battery charger when it is not being used. Minute amounts of current are drawn from the battery while it is in the camera, even when not in use. This may result in excessive battery drain and complete loss of function.
- Recharge the battery at least once every six months and completely exhaust it before returning it to storage.
- Put the battery in a plastic bag, etc. in order to insulate it and store it in a cool place. The battery should be stored in a dry location with an ambient temperature of 15°C to 25°C (59°F to 77°F). Do not store the battery in hot or extremely cold locations.

Battery Life

A marked drop in the time a fully charged battery retains its charge, when used at room temperature, indicates that the battery needs to be replaced. Purchase a new battery.

Recycling Used Batteries

Replace the battery when it no longer holds a charge. Used batteries are a valuable resource. Please recycle used batteries in accordance with local regulations.

The Charging AC Adapter

- The EH-73P/EH-73PCH Charging AC Adapter is for use only with compatible devices. Do not use with another make or model of device.
- Do not use any USB cable other than the UC-E21. Using a USB cable other than the UC-E21 could result in overheating, fire or electric shock.
- Do not, under any circumstances, use another make or model of charging AC adapter other than the EH-73P/EH-73PCH Charging AC Adapter, and do not use a commercially available USB-AC adapter or a battery charger for a mobile phone. Failure to observe this precaution could result in overheating or in damage to the camera.
- The EH-73P/EH-73PCH is compatible with AC 100–240 V, 50/60 Hz electrical outlets. When using in other countries, use a plug adapter (commercially available) as necessary. For more information about plug adapters, consult your travel agency.

Memory Cards

Precautions for Use

- Use only microSD, microSDHC, and microSDXC memory cards (📖7).
- Be sure to follow the precautions described in the documentation included with the memory card.
- Do not put labels or stickers on memory cards.

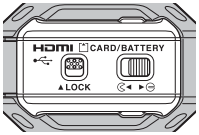
Formatting

- Do not format the memory card using a computer.
- The first time you insert a memory card that has been used in another device into this camera, be sure to format it with this camera. We recommend formatting new memory cards with this camera before using them with this camera.
- **Note that formatting a memory card permanently deletes all images and other data on the memory card.** Be sure to make copies of any images you wish to keep before formatting the memory card.
- If the message **Card is not formatted. Format card?** is displayed on the smart device after a memory card is inserted, the memory card must be formatted. If there is data that you do not want to delete, select **No**. Copy the necessary data to a computer, etc. If you want to format the memory card, select **Yes**.
- Do not perform the following during formatting, while data is being written to or deleted from the memory card, or during data transfer to a computer. Failure to observe this precaution could result in the loss of data or in damage to the camera or memory card:
  - Open the battery-chamber/memory card slot cover to remove/insert the battery or memory card.
  - Turn off the camera.
  - Disconnect the AC adapter.

Cleaning and Storage

Cleaning after Using the Camera Underwater

Follow the procedure below to rinse the camera with fresh water within 60 minutes after using it underwater or at the beach. The underwater lens protectors are used here as an example.



1. Check that the battery-chamber/memory card slot cover is securely closed (locked).

- Check that the battery-chamber/memory card slot cover latch and battery-chamber/memory card slot cover latch release are positioned as shown in the figure on the right, and that their orange indicator marks are not visible.

2. Wash with fresh water while the underwater lens protectors are attached.

Immerse the camera in a shallow basin filled with fresh water for 10 minutes.

- Immerse the camera in fresh water and shake it sufficiently in the water to remove any foreign substances from the camera. If foreign substances still remain, remove them with a cotton swab, etc.
- When the camera is immersed in the water, a few air bubbles may come out from the water drain holes of the camera such as openings in the microphone or speakers. This is not a malfunction.

3. Wrap the camera with a soft dry cloth to wipe off water droplets, and dry the camera in a well-ventilated and shady place.

- Place the camera on a dry cloth to dry it.
- Do not dry the camera with hot air from a hair dryer or clothes dryer.

4. Check that there are no water droplets, remove the underwater lens protectors, and then remove any water droplets or sand remaining on the inner side of the underwater lens protectors with a soft dry cloth.

- Attaching an underwater lens protector while the inner side is still wet could cause condensation or a malfunction.

5. After making sure that there are no water droplets on the camera, open the battery-chamber/memory card slot cover and use a soft dry cloth to gently wipe off any water or sand remaining on the waterproofing packing or inside the camera.

- If the cover is closed when the inside is wet, this could cause condensation or a malfunction.

Cleaning after Using the Camera in Conditions Other than Underwater

Use a blower or air duster to remove any dust or lint that adheres to the lenses, lens protectors, silicone jacket, camera body, special accessories, etc. To remove fingerprints or other stains, gently wipe the parts with a soft dry cloth. If you wipe with too much pressure or with a rough cloth, it may damage the camera or cause a malfunction.

Storage

If you do not intend to use the camera for an extended period, remove the battery and avoid storing the camera in any of the following types of locations:

- Places that are poorly ventilated or subject to humidity of over 60%
- Places exposed to temperatures above 50°C (122°F) or below –10°C (14°F)
- Places next to equipment that produces strong electromagnetic fields, such as televisions or radios
  To prevent mold or mildew, take the camera out of storage at least once a month, and turn it on and release the shutter a few times before putting it away again. Completely exhaust the battery before storing it, and recharge it at least once every six months. Also, place the battery in a container such as plastic bag in order to insulate it, and store it in a cool place.

Functions That Cannot Be Used Simultaneously When Shooting

Some functions cannot be used with other menu settings.

Restricted function	Setting	Description
Movie options	Movie mode	• When **Superlapse movie** is selected, **Movie options** is fixed at **960/30p** (when set to **NTSC**) or **960/25p** (when set to **PAL**). • When **Loop recording** is set to **60 min**, **2160/24p** and **1920/24p** cannot be selected for **Movie options**. • When **Time-lapse movie** is selected, **Movie options** is fixed at **960/30p** (when set to **NTSC**) or **960/25p** (when set to **PAL**).
NTSC/PAL	Movie options	When **2160/24p** or **1920/24p** is selected, the **NTSC/PAL** setting is disabled.
Active D-Lighting	Underwater	When **Yes** is selected, **Active D-Lighting** is fixed at **No**.
White balance	Underwater	When **Yes** is selected, **White balance** is fixed at **Auto**.
	Color options	When **Monochrome** is selected, **White balance** is fixed at **Auto**.
Color options	Underwater	When **Yes** is selected, **Color options** is fixed at **Standard**.

Error Messages

Refer to the table below if an error message is displayed on the smart device screen.

Display	Cause/Solution	🕮
Battery temperature is elevated. The camera will turn off. The camera will turn off to prevent overheating.	The camera turns off automatically. Wait until the camera or battery temperature has cooled before resuming use.	–
This card cannot be used. This card cannot be read.	An error occurred while accessing the memory card. • Use an approved memory card. • Check that the terminals are clean. • Confirm that the memory card is correctly inserted.	6, 7
Card is not formatted. Format card?	The memory card has not been formatted for use in the camera. Formatting deletes all data saved on the memory card. If you need to keep copies of any images, make sure to select **No** and save the copies to a computer or other medium before formatting the memory card. Select **Yes** to format the memory card.	7, 47
Out of memory.	Delete images or insert a new memory card.	6
Image cannot be saved.	An error occurred while saving the image. Insert a new memory card or format the memory card.	6
	The camera has run out of file numbers. Insert a new memory card or format the memory card.	6
Image cannot be modified.	Check that the images can be edited.	56
Cannot record movie.	A time-out error occurred while saving the movie on the memory card. Select a memory card with a faster write speed.	7
Memory contains no images.	Insert a memory card that contains images.	6

Display	Cause/Solution	🕮
File contains no image data.	The file was created or edited with another camera. The file cannot be viewed on the SnapBridge 360/170 app. View the file using a computer or the device used to create or edit this file.	–
System error	An error occurred in the camera's internal circuitry. Turn the camera off, remove and reinsert the battery, and turn the camera on. If the error persists, contact your retailer or Nikon-authorized service representative.	53

Troubleshooting

If the camera fails to function as expected, check the list of common problems below before consulting your retailer or Nikon-authorized service representative.

Camera Issues

Problem	Cause/Solution	🕮
The camera is on but does not respond.	• Wait for recording to end. • If the problem persists, turn the camera off. If the camera does not turn off, remove and reinsert the battery or batteries or, if you are using an AC adapter, disconnect and reconnect the AC adapter. Note that although any data currently being recorded will be lost, data that have already been recorded will not be affected by removing or disconnecting the power source. • The buttons of the camera are disabled during remote photography. To operate the buttons of the camera, exit remote photography.	–
The camera does not turn on.	The battery is exhausted.	8, 45
Cannot take pictures or record movies.	• During remote photography, images cannot be captured only with the camera. Exit remote photography. • Disconnect the HDMI cable or USB cable. • Insert a memory card with sufficient free space.	– – 6
The camera turns off without warning.	• The camera automatically turns off to save power (auto off function). • The camera and battery may not work properly at low temperatures. • The inside of the camera has become hot. Leave the camera off until the inside of the camera has cooled, and then try turning it on again.	10 45 –
The camera becomes hot.	The camera may become hot when used for an extended period of time such as to shoot movies, or when used in a hot environment; this is not a malfunction.	–

Problem	Cause/Solution	🕮
The camera beeps three times.	• The battery is exhausted. • Out of memory. Insert a memory card with sufficient free space. • The camera has run out of file numbers. Change the memory card, or format the memory card. • An error occurred while accessing the memory card. - Use an approved memory card. - Check that the terminals are clean. - Confirm that the memory card is correctly inserted.	8, 45 6 6 6, 7
The camera does not turn off automatically.	The time until the camera turns off is fixed in the following situations: • When connection with a smart device ends or fails: 1 min • When **Camera ➔ Camera settings ➔ Network menu ➔ Bluetooth ➔ Send while off** in the SnapBridge 360/170 app is set to **Off**: 30 s (when **Auto off** is set to **2 s** or **5 s**) • While connected with an HDMI cable: 30 min	– 27 –
The battery inserted in the camera cannot be charged.	• Confirm all connections. • When connected to a computer, the camera may not charge for any of the reasons described below. - **Camera ➔ Camera settings ➔ Charge by computer** in the SnapBridge 360/170 app is set to **Off**. - Battery charging is not possible if the camera's date and time have not been set, or the date and time were reset after the camera's clock battery was exhausted. Use the Charging AC Adapter to charge the battery. - Battery charging may stop when the computer enters sleep mode. - Depending on the computer specifications, settings, and status, battery charging may not be possible.	8 27 27 – –
Images are not displayed on TV.	• A computer is connected to the camera. • The memory card contains no images.	–
The camera cannot be operated via the remote control (available separately).	• Perform pairing. • If pairing has already been performed, select **Camera & remote** using **Camera ➔ Remote options ➔ Choose connection** in the SnapBridge 360/170 app.	63 27, 64

SnapBridge 360/170 App Issues

Problem	Cause/Solution	🕮
The camera cannot be paired.	• Enable Bluetooth and Wi-Fi on the smart device. When using NFC on an NFC-compatible Android device, enable NFC. • Turn off the camera. The camera cannot enter pairing standby mode when the camera is on. • Turn off the airplane mode switch on the camera. • Disconnect the HDMI cable or USB cable. • The camera battery is exhausted.	– 10 2 – 8, 45
The camera cannot be operated via the smart device.	• Perform pairing. • If pairing has already been performed, select **Camera & smart device** using 📷 **Camera** ➔ **Remote options** ➔ **Choose connection** in the SnapBridge 360/170 app.	11 27, 64
Cannot take pictures or record movies remotely.	• Enable Wi-Fi on the smart device. • Disconnect the HDMI cable or USB cable. • Insert a memory card with sufficient free space.	– – 6
Date and time of recording are not correct.	• If the camera clock has not been set, images and movies saved before the clock is set are dated "00/00/0000 00:00" and "01/01/2016 00:00" respectively. **Connect** ➔ turn on **Synchronize clock** in the SnapBridge 360/170 app. • The camera clock is not as accurate as ordinary watches or clocks. Periodically compare the time of the camera clock with that of a more accurate timepiece and reset as required.	–
The camera settings reset.	The clock battery is exhausted; all settings were restored to their default values. Configure the camera settings again. • The internal clock battery is used to power the camera clock and to retain certain settings. Charging time of the clock battery takes about 10 hours when you insert the battery into the camera or connect the AC adapter (available separately) to the camera, and the clock battery operates for several days even after the camera battery is removed.	–
Colored stripes appear in the shooting screen of the SnapBridge 360/170 app.	Colored stripes may appear when shooting subjects with repeating patterns (such as window blinds); this is not a malfunction. The colored stripes will not appear in captured images or recorded movies.	–
Images are blurred.	Use a tripod to stabilize the camera (using the self-timer at the same time is more effective).	27
Images appear smeared.	The lenses, lens protectors, or underwater lens protectors are dirty. Clean them.	48
Colors are unnatural.	White balance is not adjusted properly.	27

Problem	Cause/Solution	🕮
Randomly spaced bright pixels ("noise") appear in image.	The subject is dark and the shutter speed is too slow or ISO sensitivity is too high.	–
The images are too dark or too bright.	Adjust exposure compensation using **Camera ➔ Camera settings ➔ Shooting options ➔ Shooting options ➔ Exposure compensation** in the SnapBridge 360/170 app.	27
Saving images takes time.	Saving images may take time when shooting using **Camera ➔ Camera settings ➔ Shooting options ➔ Shooting options ➔ Active D-Lighting** in the SnapBridge 360/170 app.	27
A ring-shaped belt or rainbow-colored stripe appears on the SnapBridge 360/170 app screen or images.	• When shooting with backlighting or when a very strong light source (such as sunlight) is in the frame, a ring-shaped belt or rainbow-colored stripe (ghosting) may occur. • The lenses, lens protectors, or underwater lens protectors are dirty. Clean them.	– 48
Cannot select a setting/Selected setting is disabled.	• Certain menu items are unavailable depending on the setting. • A function that restricts the selected function is enabled.	–
File cannot be played back.	• This app may not be able to play back images saved with another make or model of digital camera. • This app cannot play back movies recorded with another make or model of digital camera. • This app may not be able to play back data edited on a computer.	–
Images saved in the camera are not displayed on a smartphone, tablet or computer.	If the number of images saved on a memory card in the camera exceeds 10,000, images captured thereafter may not be displayed in a connected device. • Reduce the number of images saved on the memory card. Copy the necessary images to a computer, etc.	–
Cannot edit image.	• Some images cannot be edited. • There is not enough free space on the memory card. • This app is unable to edit images captured with other cameras.	–

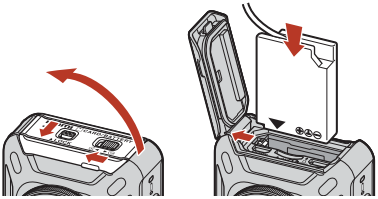
File Names

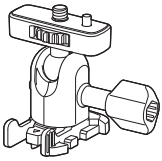
Images or movies are assigned file names as follows.

File name: DSCN0001.JPG
(1) (2) (3)

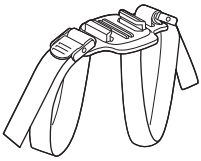
(1) Identifier	DSCN: Movies, still images
(2) File number	Assigned in ascending order, starting with "0001" and ending with "9999."
(3) Extension	Indicates file format. • .JPG: Still images • .MP4: Movies

Accessories

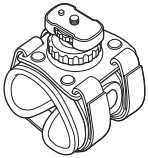
Battery Charger	MH-65P Battery Charger Charging time is about 2 hours and 30 minutes for a fully exhausted battery.
AC Adapter	EH-62F AC Adapter (connect as shown)  Fully insert the power connector cable into the groove of the AC adapter before inserting the AC adapter into the battery chamber. • Take care not to pull the power connector cable because the battery-chamber/memory card slot cover cannot be closed when the AC adapter is used. If the cable is pulled, the power connection will fail and the camera will turn off.



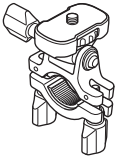
AA-1A Base Adapter (30)



AA-5 Vented Helmet Strap Mount

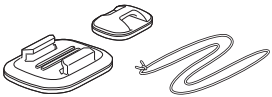


AA-6 Wrist Mount

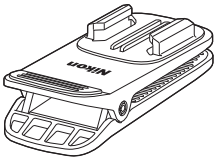


AA-7 Handlebar Mount

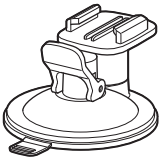
AA-8 Chest Mount*



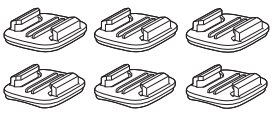
AA-9 Surfboard Mount



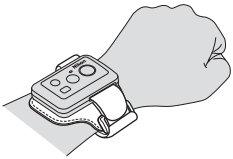
AA-10 Backpack Mount Clip*



AA-11 Suction Cup Mount

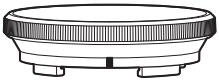


AA-12 Base Mount Set
(3 Flat + 3 Curved) (30)



AA-13 Wristband for Remote Controls

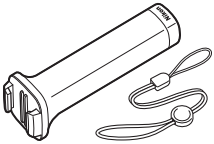
AA-14A Lens Protector (17)



AA-15A Underwater Lens Protector
(17)

CF-AA1 Silicone Jacket (16)

ML-L6 Remote Control (61)



MP-AA1 Handy Grip

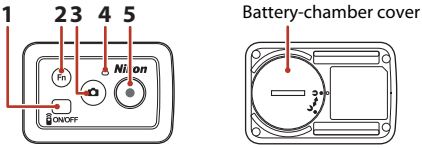
* The range blocked by the user becomes wider in images captured with this accessory attached.

Availability may vary with country or region.
See our website or brochures for the latest information.

Using the Remote Control (Available Separately)

You can use the ML-L6 Remote Control to record movies and take pictures from a distance. You can also use it to turn on the camera.

Parts and Functions of the Remote Control



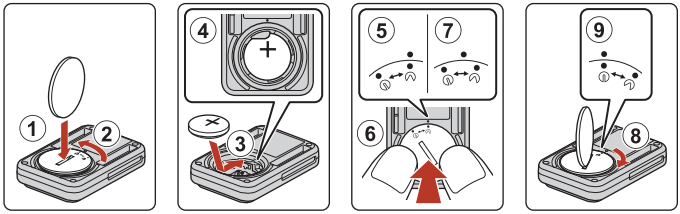
	Part	Function	🕮
1	Power button	Turns on the remote control when pressed, and turns it off when pressed again. Also turns off the camera.	–
2	Fn button	Switches the connection from the remote control to a paired smart device.	–
3	Photo button	Turns the camera on and captures a still image.	20
4	Status lamp	Displays the shooting status in conjunction with the status lamps on the camera.	4
5	Movie button	Turns the camera on and starts/stops movie recording.	20

Notes About Using the Remote Control

- The remote control cannot be used underwater.
- Make sure to read "Notes About Waterproof Performance of the Remote Control" (🕮65) and "Notes About Condensation and Waterproof Performance of the Remote Control" (🕮65).

Inserting the Battery in the Remote Control

Insert a 3V CR2032 lithium battery.



- Use a coin (①) to turn the battery-chamber cover counterclockwise (②) and open it.
- Insert the battery with the positive side face up (③). Make sure that the battery is firmly inserted at the center of the battery chamber (④).
- Align the mark of the battery-chamber cover with the ● mark of the remote control (⑤), and press the battery-chamber cover with your thumbs (⑥). The battery-chamber cover rotates clockwise slightly and stops (⑦).
- Use a coin to turn the battery-chamber cover clockwise (⑧) to securely lock it. Make sure that the mark of the battery-chamber cover is aligned with the ● mark of the remote control (⑨).
- Make sure that no foreign substance such as lint is caught in the battery-chamber cover. Failure to observe this precaution could impair the waterproof performance and cause water to seep inside the remote control.

Pairing the Camera and Remote Control

Before using the remote control for the first time, it must be paired with the camera.

* In this manual, "pairing" refers to the establishment of a Bluetooth connection between the camera and remote control.

- The camera can only be paired with one remote control at a time. When the camera is paired to a different remote control, only the most recent pairing information is saved.

1 Launch the SnapBridge 360/170 app on your smart device, and tap **Camera ➔ Remote options ➔ Pair remote**.

- When the status lamps on the camera flash green at the same time for a while and then alternately flash green, the camera enters pairing standby mode for the remote control.
- If pairing fails, the status lamps on the camera flash red six times at the same time, and then turn off. Turn off the camera, and then press and hold the movie button on the camera for about 7 seconds. The camera turns on in pairing standby mode for the remote control. Proceed to step 2.

2 Check that the remote control is off, and then press and hold (for at least 3 seconds) the power button on the remote control.

- Pairing starts for the camera and remote control. While the process is being performed, the status lamp on the remote control flashes green.
- When pairing is complete, the status lamp on the remote control turns off, and the status lamps on the camera flash green twice at the same time.
- If pairing fails, the status lamps on the camera flash red six times at the same time. Perform the procedure again from step 1.

Switching Between Smart Device and Remote Control

The camera cannot be operated by both the remote control and a smart device at the same time. Follow the procedure below to switch from one to the other.

Switching from Smart Device to Remote Control

Switch the connection from a smart device to a paired remote control.

1 Launch the SnapBridge 360/170 app on your smart device, and set **Camera ➔ Remote options ➔ Choose connection** to **Camera & remote**.

- The camera connects to the remote control.

2 Turn on the remote control.

- A connection is established between the camera and remote control.
- When the camera is off, turn on the remote control, and then press the movie button or photo button on the remote control.

Switching from Remote Control to Smart Device

Switch the connection from the remote control to a paired smart device.

1 Turn on the camera and remote control, and then press and hold (for at least 3 seconds) the Fn button on the remote control.

- The camera connects to the smart device.

2 Launch the SnapBridge 360/170 app on your smart device.

- A connection is established between the camera and smart device.

Status Lamp on the Remote Control

Status	Color	Description
Solid	Red	A movie is being recorded in **Standard movie** mode.
Flashes three times then lights up solid	Red	A movie is being recorded in a mode other than **Standard movie** mode.
Flashes then turns off	Green	A still image is captured.

Notes About Waterproof Performance of the Remote Control

The remote control is rated equivalent to JIS/IEC waterproof class 7 (IPX7), and it is confirmed that water does not seep inside when soaked underwater at a depth of 1 m (3.2 ft) for up to 30 minutes.

- The remote control cannot be used underwater.

Notes About Condensation and Waterproof Performance of the Remote Control

- Do not drop the remote control, strike it against a hard object such as a rock, or throw it against a water surface.
- Do not take the remote control underwater.
  - If the remote control is dropped in water by accident, immediately pick it up and wipe it off with a soft dry cloth.
- Do not insert a wet battery in the remote control.
  - Do not open the battery-chamber cover when the remote control or your hands are wet. Doing so may cause water to seep inside the remote control and result in malfunction.
- If moisture such as water droplets or a foreign substance adheres to the outside of the remote control or the inside of the battery-chamber cover, immediately wipe it off with a soft dry cloth.
- Make sure that the battery-chamber cover is firmly closed.
  - Make sure that the battery-chamber cover is in the CLOSE position.
  - Make sure that no foreign substance such as lint is caught in the battery-chamber cover. Failure to observe this precaution could cause water to seep inside the remote control.
- Do not leave the remote control in cold conditions or in hot conditions of 40°C (104°F) or more for a long period of time.
  - Doing so could cause deterioration of the waterproof performance.
- Do not suddenly bring the remote control to high-humidity environment if it is exposed to extreme cold for an extended period.
  - Condensation may form inside the remote control.

Specifications

Nikon KeyMission 360 Digital Camera

Type	Compact digital camera
Number of effective pixels	23.9 million (Image processing may reduce the number of effective pixels.)
Image sensor	1/2.3-in. type CMOS; approx. 21.14 million total pixels ×2
Lens	NIKKOR lens ×2
Focal length	1.6 mm (equivalent to 8.2 mm lens in 35mm [135] format)
f/-number	f/2
Construction	7 elements in 7 groups
Focus	Fixed focus
Focus range	Approx. 30 cm (1 ft)–∞ (distance measured from center of front surface of lens)
Storage	
Media	microSD/microSDHC/microSDXC memory card
File system	DCF and Exif 2.3 compliant
File formats	Still images: JPEG Movies: MP4 (Video: H.264/MPEG-4 AVC, Audio: AAC stereo)
Image size (pixels)	• 30 M **7744×3872** • 7 M **3872×1936**
Resolution/frame rate (movie options)	• When **NTSC/PAL** is set to **NTSC** 2160/24p, 1920/24p, 960/30p, 640/120p, 320/240p • When **NTSC/PAL** is set to **PAL** 2160/24p, 1920/24p, 960/25p, 640/100p, 320/200p
ISO sensitivity (Standard output sensitivity)	ISO 100–1600
Exposure	
Metering mode	Matrix
Exposure control	Programmed auto exposure, exposure compensation (–2.0 – +2.0 EV in steps of 1/3 EV)
Shutter	CMOS electronic shutter
Speed	1/8000–1 s
Self-timer	Can be selected from 10 s and 2 s

Interface	
USB connector	Micro-USB connector (Do not use any USB cable other than the included UC-E21 USB Cable.), Hi-Speed USB
HDMI output connector	HDMI micro connector (Type D)
Wi-Fi (Wireless LAN)	
Standards	IEEE 802.11b/g (standard wireless LAN protocol)
Operating frequency	2412–2462 MHz (1–11 channels)
Authentication	Open system, WPA2-PSK
Bluetooth	
Communication protocols	Bluetooth Specification Version 4.1
Power sources	One EN-EL12 Rechargeable Li-ion Battery (included) EH-62F AC Adapter (available separately)
Charging time	Approx. 2 h 20 min (when using EH-73P/EH-73PCH Charging AC Adapter and when no charge remains)
Battery life[1]	
Still images	Approx. 230 shots when using EN-EL12
Movie recording (actual battery life for recording)	Approx. 1 h 10 min when using EN-EL12
Tripod socket	1/4 (ISO 1222)
Dimensions (W × H × D)	Approx. 65.7 × 60.6 × 61.1 mm (2.6 × 2.4 × 2.5 in.) (including lens protectors)
Weight	Approx. 198 g (7.0 oz) (including lens protectors, battery and memory card)
Operating environment	
Temperature	–10°C–+40°C (14°F–104°F) (for land use) 0°C–40°C (32°F–104°F) (for underwater use)
Humidity	85% or less (no condensation)
Waterproof performance[2]	JIS/IEC protection class 8 (IPX8) equivalent (under our testing conditions) Capacity to record images and movies underwater up to a depth of 30 m (100 ft) and for 60 minutes
Dustproof performance	JIS/IEC protection class 6 (IP6X) equivalent (under our testing conditions)
Shockproof performance[3]	Cleared our testing conditions[4] compliant with MIL-STD 810F Method 516.5-Shock

- All measurements are performed in conformity with Camera and Imaging Products Association (CIPA) standards or guidelines.

[1] Battery life does not reflect the use of SnapBridge 360/170 and may vary with the conditions of use, including temperature and the interval between shots.
[2] The camera can be used up to a water depth of about 20 m (65 ft) when the lens protectors are attached.
[3] When the lens protectors or underwater lens protectors are attached.
[4] Dropped from a height of 200 cm (6 ft 6 in.) onto a surface of 5 cm (2 in.) thick plywood (changes in appearance, such as paint peeling off and deformation of the drop shock portion and waterproof performance are not subject to the test).
These tests do not guarantee that the camera will be free from damage or trouble under all conditions.

EN-EL12 Rechargeable Li-ion Battery

Type	Rechargeable lithium-ion battery
Rated capacity	DC 3.7 V, 1050 mAh
Operating temperature	0°C–40°C (32°F–104°F)
Dimensions (W × H × D)	Approx. 32 × 43.8 × 7.9 mm (1.3 × 1.8 × 0.4 in.)
Weight	Approx. 22.5 g (0.8 oz)

EH-73P/EH-73PCH Charging AC Adapter

Rated input	AC 100–240 V, 50/60 Hz, MAX 0.14 A
Rated output	DC 5.0 V, 1.0 A
Operating temperature	0°C–40°C (32°F–104°F)
Dimensions (W × H × D)	Approx. 55 × 22 × 54 mm (2.2 × 0.9 × 2.2 in.) (excluding plug adapter) For Argentina: Approx. 55 × 63 × 59 mm (2.2 × 2.5 × 2.4 in.) For India: Approx. 55 × 63.5 × 59 mm For Korea: Approx. 55 × 67 × 59 mm
Weight	Approx. 51 g (1.8 oz) (excluding plug adapter) For Argentina: Approx. 76 g (2.7 oz) For India: Approx. 76 g For Korea: Approx. 73 g

The symbols on this product represent the following:
~ AC, ⎓ DC, ⧈ Class II equipment (The construction of the product is double-insulated.)

AA-14A Lens Protector

Dimensions (W × D)	Approx. 42.0 × 12.1 mm (1.7 × 0.5 in.)
Weight	Approx. 5 g (0.18 oz)

AA-15A Underwater Lens Protector

Dimensions (W × D)	Approx. 49.3 × 13.3 mm (2.0 × 0.6 in.)
Weight	Approx. 12.1 g (0.43 oz)

AA-1A Base Adapter

Dimensions (W × H × D)	Approx. 69.5 × 53.0 × 46.0 mm (2.8 × 2.1 × 1.9 in.) (excluding camera screw)
Weight	Approx. 39 g (1.4 oz)
Load capacity	Up to 300 g (10.5 oz)

AA-2 Base Mount (Flat)

Dimensions (W × H × D)	Approx. 40.0 × 12.5 × 49.2 mm (1.6 × 0.5 × 2.0 in.)
Weight	Approx. 10 g (0.36 oz)

AA-3 Base Mount (Curved)

Dimensions (W × H × D)	Approx. 40.0 × 12.5 × 49.2 mm (1.6 × 0.5 × 2.0 in.)
Weight	Approx. 9 g (0.32 oz)

CF-AA1 BK Silicone Jacket

Dimensions (W × H × D)	Approx. 68.9 × 67.7 × 44.4 mm (2.8 × 2.7 × 1.8 in.)
Weight	Approx. 13.4 g (0.48 oz)

ML-L6 Remote Control (Available Separately)

Power sources	3V CR2032 lithium battery
Bluetooth	
Communication protocols	Bluetooth Specification Version 4.1
Communication distance	Approx. 10 m (10 yd)
Operating environment	
Temperature	–10°C–+40°C (14°F–104°F) (for land use)
Humidity	85% or less (no condensation)
Waterproof performance	JIS/IEC protection class 7 (IPX7) equivalent (under our testing conditions) It is confirmed that water does not seep inside when soaked underwater at a depth of 1 m (3.2 ft) for up to 30 minutes. However, the remote control cannot be used underwater.
Dimensions (W × H × D)	Approx. 60.0 × 13.8 × 40.0 mm (2.4 × 0.6 × 1.6 in.) (excluding projections)
Weight	Approx. 22.6 g (0.8 oz) (including battery)

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